

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/003423

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F16D66/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 F16D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 679 817 A (NISSHINBO INDUSTRIES INC) 2 November 1995 (1995-11-02) column 5, line 30 - line 52	1,2,4
A	EP 0 393 211 A (LUCAS INDUSTRIES PUBLIC LIMITED COMPANY) 24 October 1990 (1990-10-24) column 4, line 52 - line 55	1-3
A	WO 99/53212 A (PBR AUTOMOTIVE PTY. LTD; WANG, NUI) 21 October 1999 (1999-10-21) page 3, line 18 - page 4, line 2	1,5,6
A	& GB 2 328 257 A (* AUTOMOTIVE PRODUCTS) 17 February 1999 (1999-02-17) cited in the application	1,5,6
-/--		

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- * & * document member of the same patent family

Date of the actual completion of the international search

24 February 2005

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04/03/2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 429 110 A (FERODO ABEX SA FORMERLY ABEX EQUIPEMENTS SA) 29 May 1991 (1991-05-29) column 2, line 31 - line 44 -----	1
A	DE 26 37 205 A1 (FUCHS, JOSEF) 23 February 1978 (1978-02-23) page 9, line 2 - line 12 -----	1
A	US 3 782 513 A (BIRGE W, US) 1 January 1974 (1974-01-01) column 2, line 45 - line 59 -----	1
A	US 2 077 695 A (HORN HARRY J) 20 April 1937 (1937-04-20) column 2, line 14 - line 46 -----	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/003423

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0679817	A	02-11-1995	JP 3263836 B2 JP 7293612 A DE 69514141 D1 DE 69514141 T2 EP 0679817 A1 US 5511636 A	11-03-2002 07-11-1995 03-02-2000 21-09-2000 02-11-1995 30-04-1996
EP 0393211	A	24-10-1990	EP 0393211 A1 DE 58904806 D1 ES 2042854 T3 US 5002159 A	24-10-1990 29-07-1993 16-12-1993 26-03-1991
WO 9953212	A	21-10-1999	AU 747553 B2 AU 3130499 A WO 9953212 A1 BR 9909485 A CA 2327864 A1 CN 1120310 C EP 1068459 A1 JP 2002511554 T US 6705439 B1 ZA 200005407 A	16-05-2002 01-11-1999 21-10-1999 12-12-2000 21-10-1999 03-09-2003 17-01-2001 16-04-2002 16-03-2004 04-10-2001
GB 2328257	A	17-02-1999	AU 6226798 A BR 9804777 A DE 69817734 D1 DE 69817734 T2 EP 0917630 A1 WO 9840640 A1 JP 2002514290 T US 6802397 B1	29-09-1998 17-08-1999 09-10-2003 11-03-2004 26-05-1999 17-09-1998 14-05-2002 12-10-2004
EP 0429110	A	29-05-1991	EP 0429110 A1 GB 2238091 A , B	29-05-1991 22-05-1991
DE 2637205	A1	23-02-1978	NONE	
US 3782513	A	01-01-1974	NONE	
US 2077695	A	20-04-1937	NONE	